



SEQUENCE LISTING

Pier, Gerald B.

<120> Methods and Products for Treating
Pseudomonas Infection

<130> B0801/7155 (HCL)

<140> 09/405,735

<141> 1999-09-24

<150> US 08/681,838

<151> 1996-07-29

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120

171

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219

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267

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315

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363

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411

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459

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Thr Leu Glu Tyr Asn Leu Thr Thr Glu Val Val Met Glu Asn Val			
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Thr Ala Phe Trp Glu Glu Gly Phe Gly Glu Leu Phe Glu Lys Ala Lys			
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Phe Ser Asn Phe Ser Leu Leu Gly Thr Pro Val Leu Lys Asp Ile Asn			
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Ala Gly Lys Thr Ser Leu Leu Met Met Ile Met Gly Glu Leu Glu Pro			
465	470	475	
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Ser Glu Gly Lys Ile Lys His Ser Gly Arg Ile Ser Phe Cys Ser Gln			
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Val Ser Tyr Asp Glu Tyr Arg Tyr Arg Ser Val Ile Lys Ala Cys Gln			
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cta gaa gag gac atc tcc aag ttt gca gag aaa gac aat ata gtt ctt			1755
Leu Glu Glu Asp Ile Ser Lys Phe Ala Glu Lys Asp Asn Ile Val Leu			
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Leu Ala Arg Ala Val Tyr Lys Asp Ala Asp Leu Tyr Leu Leu Asp Ser			
560	565	570	
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Pro Phe Gly Tyr Leu Asp Val Leu Thr Glu Lys Glu Ile Phe Glu Ser			
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Cys Val Cys Lys Leu Met Ala Asn Lys Thr Arg Ile Leu Val Thr Ser			
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Lys Met Glu His Leu Lys Lys Ala Asp Lys Ile Leu Ile Leu Asn Glu			
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Gly Ser Ser Tyr Phe Tyr Gly Thr Phe Ser Glu Leu Gln Asn Leu Gln			
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Pro Asp Phe Ser Ser Lys Leu Met Gly Cys Asp Ser Phe Asp Gln Phe			
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Ser Ala Glu Arg Arg Asn Ser Ile Leu Thr Glu Thr Leu His Arg Phe			
655	660	665	
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670	675	680	685
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Ser Phe Lys Gln Thr Gly Glu Phe Gly Glu Lys Arg Lys Asn Ser Ile			
690	695	700	
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ccc tta caa atg aat ggc atc gaa gag gat tct gat gag cct tta gag			2331
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Arg Arg Leu Ser Leu Val Pro Asp Ser Glu Gln Gly Glu Ala Ile Leu			
735	740	745	
cct cgc atc agc gtg atc agc act ggc ccc acg ctt cag gca cga agg			2427
Pro Arg Ile Ser Val Ile Ser Thr Gly Pro Thr Leu Gln Ala Arg Arg			
750	755	760	765
agg cag tct gtc ctg aac ctg atg aca cac tca gtt aac caa ggt cag			2475
Arg Gln Ser Val Leu Asn Leu Met Thr His Ser Val Asn Gln Gly Gln			
770	775	780	
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Asn Ile His Arg Lys Thr Thr Ala Ser Thr Arg Lys Val Ser Leu Ala			
785	790	795	
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Val	Gln	Pro	Leu	Leu	Leu	Gly	Arg	Ile	Ile	Ala	Ser	Tyr	Asp	Pro	Asp	
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						145			150			155			160	
Tyr	Lys	Lys	Thr	Leu	Lys	Leu	Ser	Ser	Arg	Val	Leu	Asp	Lys	Ile	Ser	
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Ile	Gly	Gln	Leu	Val	Ser	Leu	Leu	Ser	Asn	Asn	Leu	Asn	Lys	Phe	Asp	
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Glu	Gly	Leu	Ala	Leu	Ala	His	Phe	Val	Trp	Ile	Ala	Pro	Leu	Gln	Val	
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Ala	Leu	Leu	Met	Gly	Leu	Ile	Trp	Glu	Leu	Leu	Gln	Ala	Ser	Ala	Phe	
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Cys	Gly	Leu	Gly	Phe	Leu	Ile	Val	Leu	Ala	Leu	Phe	Gln	Ala	Gly	Leu	
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Gly	Arg	Met	Met	Met	Lys	Tyr	Arg	Asp	Gln	Arg	Ala	Gly	Lys	Ile	Ser	
						245			250			255				
Glu	Arg	Leu	Val	Ile	Thr	Ser	Glu	Met	Ile	Glu	Asn	Ile	Gln	Ser	Val	
						260			265			270				
Lys	Ala	Tyr	Cys	Trp	Glu	Glu	Ala	Met	Glu	Lys	Met	Ile	Glu	Asn	Leu	

275	280	285	
Arg Gln Thr Glu Leu Lys Leu Thr Arg Lys Ala Ala Tyr Val Arg Tyr			
290	295	300	
Phe Asn Ser Ser Ala Phe Phe Ser Gly Phe Phe Val Val Phe Leu			
305	310	315	320
Ser Val Leu Pro Tyr Ala Leu Ile Lys Gly Ile Ile Leu Arg Lys Ile			
325	330	335	
Phe Thr Thr Ile Ser Phe Cys Ile Val Leu Arg Met Ala Val Thr Arg			
340	345	350	
Gln Phe Pro Trp Ala Val Gln Thr Trp Tyr Asp Ser Leu Gly Ala Ile			
355	360	365	
Asn Lys Ile Gln Asp Phe Leu Gln Lys Gln Glu Tyr Lys Thr Leu Glu			
370	375	380	
Tyr Asn Leu Thr Thr Glu Val Val Met Glu Asn Val Thr Ala Phe			
385	390	395	400
Trp Glu Glu Gly Phe Gly Glu Leu Phe Glu Lys Ala Lys Gln Asn Asn			
405	410	415	
Asn Asn Arg Lys Thr Ser Asn Gly Asp Asp Ser Leu Phe Phe Ser Asn			
420	425	430	
Phe Ser Leu Leu Gly Thr Pro Val Leu Lys Asp Ile Asn Phe Lys Ile			
435	440	445	
Glu Arg Gly Gln Leu Leu Ala Val Ala Gly Ser Thr Gly Ala Gly Lys			
450	455	460	
Thr Ser Leu Leu Met Met Ile Met Gly Glu Leu Glu Pro Ser Glu Gly			
465	470	475	480
Lys Ile Lys His Ser Gly Arg Ile Ser Phe Cys Ser Gln Phe Ser Trp			
485	490	495	
Ile Met Pro Gly Thr Ile Lys Glu Asn Ile Ile Phe Gly Val Ser Tyr			
500	505	510	
Asp Glu Tyr Arg Tyr Arg Ser Val Ile Lys Ala Cys Gln Leu Glu Glu			
515	520	525	
Asp Ile Ser Lys Phe Ala Glu Lys Asp Asn Ile Val Leu Gly Glu Gly			
530	535	540	
Gly Ile Thr Leu Ser Gly Gly Gln Arg Ala Arg Ile Ser Leu Ala Arg			
545	550	555	560
Ala Val Tyr Lys Asp Ala Asp Leu Tyr Leu Leu Asp Ser Pro Phe Gly			
565	570	575	
Tyr Leu Asp Val Leu Thr Glu Lys Glu Ile Phe Glu Ser Cys Val Cys			
580	585	590	
Lys Leu Met Ala Asn Lys Thr Arg Ile Leu Val Thr Ser Lys Met Glu			
595	600	605	
His Leu Lys Lys Ala Asp Lys Ile Leu Ile Leu Asn Glu Gly Ser Ser			
610	615	620	
Tyr Phe Tyr Gly Thr Phe Ser Glu Leu Gln Asn Leu Gln Pro Asp Phe			
625	630	635	640
Ser Ser Lys Leu Met Gly Cys Asp Ser Phe Asp Gln Phe Ser Ala Glu			
645	650	655	
Arg Arg Asn Ser Ile Leu Thr Glu Thr Leu His Arg Phe Ser Leu Glu			
660	665	670	
Gly Asp Ala Pro Val Ser Trp Thr Glu Thr Lys Lys Gln Ser Phe Lys			
675	680	685	
Gln Thr Gly Glu Phe Gly Glu Lys Arg Lys Asn Ser Ile Leu Asn Pro			
690	695	700	
Ile Asn Ser Ile Arg Lys Phe Ser Ile Val Gln Lys Thr Pro Leu Gln			
705	710	715	720
Met Asn Gly Ile Glu Glu Asp Ser Asp Glu Pro Leu Glu Arg Arg Leu			
725	730	735	
Ser Leu Val Pro Asp Ser Glu Gln Gly Glu Ala Ile Leu Pro Arg Ile			
740	745	750	

Ser Val Ile Ser Thr Gly Pro Thr Leu Gln Ala Arg Arg Arg Gln Ser
 755 760 765
 Val Leu Asn Leu Met Thr His Ser Val Asn Gln Gly Gln Asn Ile His
 770 775 780
 Arg Lys Thr Thr Ala Ser Thr Arg Lys Val Ser Leu Ala Pro Gln Ala
 785 790 795 800
 Asn Leu Thr Glu Leu Asp Ile Tyr Ser Arg Arg Leu Ser Gln Glu Thr
 805 810 815
 Gly Leu Glu Ile Ser Glu Glu Ile Asn Glu Glu Asp Leu Lys Glu Cys
 820 825 830
 Leu Phe Asp Asp Met Glu Ser Ile Pro Ala Val Thr Thr Trp Asn Thr
 835 840 845
 Tyr Leu Arg Tyr Ile Thr Val His Lys Ser Leu Ile Phe Val Leu Ile
 850 855 860
 Trp Cys Leu Val Ile Phe Leu Ala Glu Val Ala Ala Ser Leu Val Val
 865 870 875 880
 Leu Trp Leu Leu Gly Asn Thr Pro Leu Gln Asp Lys Gly Asn Ser Thr
 885 890 895
 His Ser Arg Asn Asn Ser Tyr Ala Val Ile Ile Thr Ser Thr Ser Ser
 900 905 910
 Tyr Tyr Val Phe Tyr Ile Tyr Val Gly Val Ala Asp Thr Leu Leu Ala
 915 920 925
 Met Gly Phe Phe Arg Gly Leu Pro Leu Val His Thr Leu Ile Thr Val
 930 935 940
 Ser Lys Ile Leu His His Lys Met Leu His Ser Val Leu Gln Ala Pro
 945 950 955 960
 Met Ser Thr Leu Asn Thr Leu Lys Ala Gly Gly Ile Leu Asn Arg Phe
 965 970 975
 Ser Lys Asp Ile Ala Ile Leu Asp Asp Leu Leu Pro Leu Thr Ile Phe
 980 985 990
 Asp Phe Ile Gln Leu Leu Ile Val Ile Gly Ala Ile Ala Val Val
 995 1000 1005
 Ala Val Leu Gln Pro Tyr Ile Phe Val Ala Thr Val Pro Val Ile Val
 1010 1015 1020
 Ala Phe Ile Met Leu Arg Ala Tyr Phe Leu Gln Thr Ser Gln Gln Leu
 1025 1030 1035 104
 Lys Gln Leu Glu Ser Glu Gly Arg Ser Pro Ile Phe Thr His Leu Val
 1045 1050 1055
 Thr Ser Leu Lys Gly Leu Trp Thr Leu Arg Ala Phe Gly Arg Gln Pro
 1060 1065 1070
 Tyr Phe Glu Thr Leu Phe His Lys Ala Leu Asn Leu His Thr Ala Asn
 1075 1080 1085
 Trp Phe Leu Tyr Leu Ser Thr Leu Arg Trp Phe Gln Met Arg Ile Glu
 1090 1095 1100
 Met Ile Phe Val Ile Phe Ile Ala Val Thr Phe Ile Ser Ile Leu
 1105 1110 1115 112
 Thr Thr Gly Glu Gly Arg Val Gly Ile Ile Leu Thr Leu Ala
 1125 1130 1135
 Met Asn Ile Met Ser Thr Leu Gln Trp Ala Val Asn Ser Ser Ile Asp
 1140 1145 1150
 Val Asp Ser Leu Met Arg Ser Val Ser Arg Val Phe Lys Phe Ile Asp
 1155 1160 1165
 Met Pro Thr Glu Gly Lys Pro Thr Lys Ser Thr Lys Pro Tyr Lys Asn
 1170 1175 1180
 Gly Gln Leu Ser Lys Val Met Ile Ile Glu Asn Ser His Val Lys Lys
 1185 1190 1195 120
 Asp Asp Ile Trp Pro Ser Gly Gly Gln Met Thr Val Lys Asp Leu Thr
 1205 1210 1215
 Ala Lys Tyr Thr Glu Gly Gly Asn Ala Ile Leu Glu Asn Ile Ser Phe

1220	1225	1230	
Ser Ile Ser Pro Gly Gln Arg Val	Gly Leu Leu Gly Arg Thr Gly Ser		
1235	1240	1245	
Gly Lys Ser Thr Leu Leu Ser Ala Phe	Leu Arg Leu Leu Asn Thr Glu		
1250	1255	1260	
Gly Glu Ile Gln Ile Asp Gly Val Ser	Trp Asp Ser Ile Thr Leu Gln		
1265	1270	1275	128
Gln Trp Arg Lys Ala Phe Gly Val Ile	Pro Gln Lys Val Phe Ile Phe		
1285	1290	1295	
Ser Gly Thr Phe Arg Lys Asn Leu	Asp Pro Tyr Glu Gln Trp Ser Asp		
1300	1305	1310	
Gln Glu Ile Trp Lys Val Ala Asp	Glu Val Gly Leu Arg Ser Val Ile		
1315	1320	1325	
Glu Gln Phe Pro Gly Lys Leu Asp	Phe Val Leu Val Asp Gly Gly Cys		
1330	1335	1340	
Val Leu Ser His Gly His Lys Gln	Leu Met Cys Leu Ala Arg Ser Val		
1345	1350	1355	136
Leu Ser Lys Ala Lys Ile Leu Leu	Asp Glu Pro Ser Ala His Leu		
1365	1370	1375	
Asp Pro Val Thr Tyr Gln Ile Ile	Arg Arg Thr Leu Lys Gln Ala Phe		
1380	1385	1390	
Ala Asp Cys Thr Val Ile Leu	Cys Glu His Arg Ile Glu Ala Met Leu		
1395	1400	1405	
Glu Cys Gln Gln Phe Leu Val	Ile Glu Glu Asn Lys Val Arg Gln Tyr		
1410	1415	1420	
Asp Ser Ile Gln Lys Leu Leu Asn	Glu Arg Ser Leu Phe Arg Gln Ala		
1425	1430	1435	144
Ile Ser Pro Ser Asp Arg Val	Lys Leu Phe Pro His Arg Asn Ser Ser		
1445	1450	1455	
Lys Cys Lys Ser Lys Pro Gln Ile	Ala Ala Leu Lys Glu Glu Thr Glu		
1460	1465	1470	
Glu Glu Val Gln Asp Thr Arg	Leu		
1475	1480		

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 <212> PRT
 <213> Homo Sapiens

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 Gly Arg Ile Ile Ala Ser Tyr Asp Pro Asp Asn Lys Glu Glu Arg
 1 5 10 15

<210> 4
 <211> 31
 <212> PRT
 <213> Homo Sapiens

<400> 4
 Leu Trp Leu Leu Gly Asn Thr Pro Leu Gln Asp Lys Gly Asn Ser Thr
 1 5 10 15
 His Ser Arg Asn Asn Ser Tyr Ala Val Ile Ile Thr Ser Thr Ser
 20 25 30